

Application No.: 09/752,573
Amendment dated: November 12, 2004
Reply to Notice of Non-Compliant Amendment dated October 13, 2004

REMARKS/ARGUMENTS

Claims 1-23 are pending in the application. Claims 1-23 are rejected. Claim 23 is objected to. Portions of the specification, the title, and the specification are also objected to.

A substitute specification, with a marked-up and clean version, is being submitted with this response. No new matter has been added to the specification. An application data sheet is also being submitted to correct the defects in the oath and declaration, as per MPEP 603.

The Abstract has been put on a separate sheet as requested in the Notice of Non-Compliant Amendment 37 C.F.R. §1.121. The claims have been provided with the proper status identifier as requested in the Notice of Non-Compliant Amendment 37 C.F.R. §1.121.

Claims 1-4, 8-10, 11-16, and 20-22 were rejected under 35 U.S.C. §102(e) as being anticipated by Keller, U.S. Patent No. 6,636,959 (hereinafter “Keller”). Claims 5-7, 17-19, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller in view of “Register Renaming and Dynamic Speculation: an Alternative Approach,” by Mayan Moudgill and Keshav Pingali (hereinafter “Moudgill”).

Objections to Claims, the Specification, and the Oath/Declaration

Applicants disagree with Examiner’s objection to the phrase “dynamic cache line size” as used in claim 22. The phrase “cache line size” is used through out the specification and is adequately described therein, in addition to being well known in the art. For example, the specification states:

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Permitting large trace cache lines is desirable in a superscalar microprocessor, as is evident from the use of the trace cache line size as a measure of the width of the microprocessor.

(Specification, p. 8, lines 13-15).

The phrase “dynamic cache line size” is to be used in contrast to a “fixed state trace cache line size”.

A substitute specification is being submitted to correct the misspelling of the word “superscalar”. Applicants have also amended the specification to overcome Examiner’s objection to the use of the phrase “sources or designations” as listed in paragraph 9 of the current office action. The phrase now reads “sources or destinations”.

Finally, the title has been amended to comply with the Examiner’s suggestion.

As stated above, an application data sheet is also being submitted to correct the defects in the oath and declaration, as per MPEP 603.

Claim Rejections Under 35 U.S.C. §103(a)

Claims 1-4, 8-10, 11-16, and 20-22 were rejected under 35 U.S.C. §103(a) as being rendered obvious by Keller. Keller discloses a line predictor to cache alignment information for instructions (*See Abstract*).

Applicants contend that Keller fails to teach or suggest determining a set of rename resources needed for the trace cache line on a per-packet basis, as recited in claims 1, 11 and 22. Applicants further contend that Keller fails to teach or suggest comparing the set of rename

resources needed for the provisional trace cache line to a rename capacity, as recited in claims 1 and 22.

The Examiner admits that Keller does not explicitly disclose determining a set of rename resources needed for said trace cache line on a per-packet basis. The Examiner states:

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the design of Keller to make the condition for cache line termination called the maximum number of renames be the rename resource capacity so that longer cache lines and thus greater performance are realized.

(Office Action, Page 7).

The Examiner does not cite any prior art that shows this element. The MPEP states at 2143.03: "To establish a prima facie obviousness of a claimed invention, all the claimed limitations must be taught or suggested by the prior art." Keller does not teach or suggest this. Keller merely shows terminating a line if a predefined maximum is reached. The maximum may have nothing to do with the resource capacity and the method by which the predefined maximum is reached is not discussed.

Therefore, claims 1, 11, and 22 and by their dependency claims 2-4, 8-10, 12-16, and 20-21, are not rendered obvious by Keller.

Claims 5-7, 17-19, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller in view of Moudgill. Moudgill discloses a mechanism implementing register renaming, dynamic speculation, and precise interrupts (*See Abstract*).

Neither Keller, Moudgill, nor any combination of the two teach or suggest determining a set of rename resources needed for the trace cache line on a per-packet basis and comparing the

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set of rename resources needed for the provisional trace cache line to a rename capacity, as claimed in claims 1, 11, and 22, and by their dependency claims 5-7, 17-19, and 23.

Therefore, claims 5-7, 17-19, and 23, are not obvious under Keller in view of Moudgill.

For all the above reasons, the Applicant respectfully submits that this application is in condition for allowance. A Notice of Allowance is earnestly solicited.

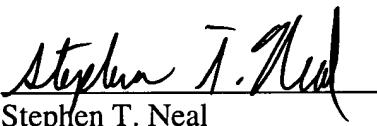
The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any matter concerning this application.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. §1.16 or §1.17 to Deposit Account No. **11-0600**.

Respectfully submitted,

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Dated: November 12, 2004

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